

CONSIDERATIONS ON THE COLLECTIVE MOBILITY VS INDIVIDUAL MOBILITY: NEW ACTORS AND FORCES

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Abstract

In this article it is analyzed as it is that the metropolitan transport appears like a multitude of intense flows of origin-destination of goods and persons who make possible the interconnection between the different areas of the metropolis for the achievement of the basic activities in the ambience of the cities. Also addressing the issue of infrastructure and equipment increasingly complex and demanding of resources along with a supply of varied modes of transport. It also discusses about the causal links between transport and urban expansion in the case of the metropolitan transport, as well as of its link and interinfluence with other fundamental dimensions, that we will address in detail such as the environmental and social-urban, among others.

Introduction

Commonly the metropolitan transport appears as a multitude of intense flows of origin – destination of goods and persons who make the interconnection possible between the diverse zones of the metropolis for the accomplishment of the basic activities in the area of the cities, as well as also of the derivatives of the intense interrelationship with his territorial immediate area (SHEN, 1999). They appear likewise in the perspective of this topic, the infrastructures and the

equipments increasingly complex and plaintiffs of resources close to an offer of varied manners of transport.

Particularly inside the metropolitan fleet there stands out significantly the presence of the particular cars. (FIGUEROA, 2008). Likewise, the intensive territorial expansion of the cities has carried increasing demands of road infrastructure and mobility, needing to destine for such purpose the largest resources of the local and even national collectivities, though finally in case of our cities only they have been achieved to settle in a partial way and not always suitable the above mentioned demands, provoking accumulated deficiencies that generate determining structural that influence or limit the future possibilities of the public urban actions in this one and other fields, particularly to metropolitan level. (TOLEDO, 2000).

The management and planning of the transport of our cities it has needed to resort to increasing sophisticated processes and technologies that, nevertheless permanently are left behind with regard to the pressures of the demand, likewise for the peculiarities, determining of the complex reality of our metropolis and of his contexts regionally, and nationally (GUTIERREZ, 2009).

The discussion on the links of causality between transport and urban expansion in case of the metropolitan transport, sends us to the necessary complex existing interrelationship between both phenomena. It does not fit doubt that in our metropolitan spaces, multitude of interventions in the field of roads and transport have provoked important impacts in the consolidation, transformation and urban expansion.

Equally we know that, modifications of urban development order have provoked requirements and adequacies in the metropolitan transport. In this regard the discussion of the one who continues to whom, in the discipline it has been replaced necessarily with the complex vision of the interinfluence and interdetermination of both phenomena, as well as of his entail and interinfluence with other fundamental dimensions, that we will approach thoroughly here in after, like the environmental one and the sociourbana, between others.

Other one of the relevant characteristics of the metropolitan transfers is that for the users appear as an unitary reality, though in many occasions for the authorities and even for the operators it appears in fragmented form since politician-administrative officer involves to different circumscriptions, which it incorporates in his management and planning additional levels of complexity (ZICCARDI AND NAVARRO, 2012).

The traditional vision of the metropolitan transport, which is reflected in some of the affirmations and previous reflections, has seen metropolis strongly impressed by the transformations suffered by the dynamics of our observed from the decade of the eighties, some of these changes were in preparation already in the previous decades and added to the transformations and joined the changes of the end of the last century and in the first fifteen years off this new millennium.

Let's take a closer look in some of the characteristics and more interesting inflexions, in our opinion, of the transport and the in force mobility at present in our metropolis and that give frame to the discussion regarding the collective mobility vs the individual mobility.

Polarized, segmented and heterogeneous transport

Reality and future of transport in our cities increasingly we have moved away from the notion of "a metropolitan transport". Beyond from the necessary existence and complementarity of the diversity of modes of transportation prevalent in our cities we cannot ignore the extreme and growing polarization of the forms cover the transfers in our metropolis.

From the extreme case of Sao Paulo that boasts the third fleet of helicopters between the cities on the planet living with the re-vamped, in its urban setting "collective pirates" (BACELIS, 2013); through coexistence polarized in the majority of our metropolis of social sectors with hypermobility from options of individual motorization, with large excluded sections of the motorized mobility depending in many cases for their transfers on feet and local pedicab services.

The significant in our metropolis is increasingly exacerbated the segmentation of transport services, playing and, occasionally, amplifying the increasing exclusion and social-economic polarization of its inhabitants. Unfortunately, something similar happens with the provision of road infrastructure and the appropriate equipment (NAVARRO, 2010).

However, the important thing is to start by acknowledging the existence of this social segmentation off the transfers, analyzing it from focusses that allow its approach, evaluating their impacts to assess accordingly the relevance of reproduce it or alleviate it.

The context of Metropolitan mobility

Metropolitan mobility more than territorial variables is determined by various processes and factors other than its internal logic but that conditioned this logic; factors and processes these to that on many occasions the fundamental importance of not grant them. Among the most outstanding factors and direct influence is the available supply of means of transport within the local economy

It depends on the degree of complexity, integration and diversification of its industry provider of equipment, transport supplies; the internalization of the external supply of transport equipment options and, of course, of the relative levels of national wealth, as well as its macro-economic policies and income distribution.

Beyond extreme situations existing in this respect, by example between countries as Brazil and some of the Central American, even among the Latin American countries of greater relative development we have that despite the similarity of some of its macroeconomic indicators, these nations possess extremely heterogeneous structures in its offer of equipment and resources for the transport (FIGUEROA, 2008).

Thus, for example in the aforementioned case of Brazil, this nation possesses not only an important structure of offer of bus equipment, but also a relevant tradition, institutional infrastructure, experience of management, planning and training of human resources for urban public transport.

This sets an important contextual feature highly positive for their decision making to metropolitan transport. Other Latin American Nations of greater development, not to mention other, do not fully possess these advantages.

Another contextual factor, linked to the previous one, has to do also with macroeconomic trends that they are beyond the scope to the possibilities of the local governments of the metropolis. It is the case known about the significant impact of the processes of globalization and commercial opening in the markets and local self-propelled manufactures. This way in diverse countries as Chile, Mexico, Costa Rica, Syria, China between others, the increase of its self-propelled park overcomes 10 %, provoking that the number of vehicles doubles every 7 years (GAKENHAIMER, 2008). This impact perhaps with less spectacular nature, also it happens in other Latin-American countries and of the Third World.

Nevertheless, the forceful fact that we cannot avoid in ours metropolis is the existence of the significant increase of the self-propelled offer impressing the circulation and transport congestion, increasing the transfer times and generating significant negative environmental impacts (WORLD BANK, 2012). But this unavoidable situation must consider also the opportunities that open the globalization and the commercial opening.

It is the case of the possibility of renewal on behalf of the metropolitan transport park, as well as also that of generation of “thresholds of offer” in certain niches, which allow to consider strategies for the rationalization of the operation and/or the promotion of the transport replacement in crucial sectors of the service like the taxis, the collective auto transport and that of load.

As well as also the disposition of a scale of options in the international technological, offer for the management of the transit, the mobility and the optimization of the systems of transport and road infrastructure. (NAVARRO, 2003). The recent experience, in the context of globalization and commercial opening, grants us two educations with regard to our topic that we cannot avoid.

The first one indicate us the serious difficulties of going against the macroeconomic tendencies and of facing the complex aspirations of the population towards the individual motorization.

The second marks the biggest difficulties of just let the market forces and the macroeconomy, the metropolitan transport; here's the unavoidable need for make integral strategies that include among others of its components use the positive elements of the economic situation (FIGUEROA, 2008), to mitigate or control the more negative effects imposed by the natural inertia of such economic dynamics.

Diversity and strength of the social agents linked to transport

The emergence and evolution of our metropolis has been given at the same time the emergence, development and consolidation of the agents transporters. In addition, the emergence, evolution, and organizational structure of these agents is as varied as the historical matrix socio-political and idiosyncratic of our Nations, but some of the most outstanding shared

traits of agents transporters (dealers, entrepreneurs, operators, etc.) directly linked to the activity are:

- Have strong roots in the communities.
- Leading or represents a very important sector of direct and indirect employment.
- Have a strong presence in local institutions and, occasionally, in the national, beyond your individual or business organization.
- Have managed to link their economic interests, in different cases, with other areas of the metropolitan development.

Complementarily for the analysis of the mobility and of its alternatives, the power and preeminence in our nations of the agents by implication linked to the transport (ZICCARDI, 1994) is, sometimes, dangerously minimized or completely avoided; as well as these agents have added to its already traditional and historical force the acquired one by its excellent economic importance in the current conjuncture, being this crucial power and preeminence, as it happens with the self-propelled businessmen and the suppliers of team of our countries to establish viable stages for the future of the metropolitan mobility.

The above bring us to the conclusion obliged to consider with objectivity, the place, features, interrelationships and strength of the agents linked directly and indirectly to the transport service when we consider the strategies for the management and development of the metropolitan transport. Ignore the above have resulted from the failure of excellent technical initiatives and administrative aimed at improving the metropolitan transport, from here its undoubted relevance.

Mobility, environment and sustainability

No doubt the close linkage between the predominant alternatives to meet the requirements of mobility in our metropolis and their serious environmental problems, particularly with regard to the quality of the air.

This not only in metropolis with geographical conditions as the Santiago de Chile or of the city of Mexico, where up to four-fifths of the main mass of air pollutants are caused by automotive transportation (PROAIRE, 2010), but also in other major metropolises like Buenos Aires, Argentina, Sao Paulo, Brazil, Lima in Peru, and Caracas, Venezuela.

On another scale but in the same way, the problem has presence in cities like Monterrey, Guadalajara, Ciudad Juárez and Puebla in Mexico, as well as in similar cities in the rest of Latin America. We also know the limitations it imposes on the sustainability present and future of the metropolis these alternatives of mobility prevalent that in our contexts are associated with patterns of occupation extensive and scattered the metropolitan space that enhances the social costs, territorial and environmental of urbanization.

Probably together with the reasons for social equity, rationality in the use of urban resources are the environmental criteria the most powerful that sustain the impulse of public transport options particularly the mass and less polluting.

The importance of the environmental arguments for the promotion of these alternatives of collective transport in the midst of a reluctant context, promoter of the car and the particular options, takes root in the most accessible consensus that can be constructed between the members of the metropolitan communities, as has been demonstrated by the experience of some of the major Latin American cities, in comparison with the other above-mentioned criteria of social equity and rational use of the urban resources, which are facing major obstacles or even compelling interests against.

Emerging trends in the mobility and globalization

Mobility in some of the main cities of our region during the transition to the new millennium, seems to manifest some modifications of the historical trends that were observed in its historical development from the second post-war period (HENRY, 2008). Among the most important we can highlight:

- The decrease of the accelerated growth of motorized mobility rates.
- The increased presence of female mobility.
- The greater dynamism and diversification of the youth mobility.
- And in the cases that determines it its demographic structure, a greater presence of displacement of older adults.

Also globalization in progress that has promoted the "informatization" of strategic urban activities, is creating conditions that will surely begin to hit certain segments of Metropolitan activity and population mobility, so that the use of the computer, the internet, Intranet, the telemarketing probably are decreasing some trips and limiting the increase in others (SHEN, 2009).

The possibilities of positive impact of these new technologies to temper the Metropolitan mobility are of great potential (BORJA and CASTELLS, 1997). But unfortunately in our societies access to these technologies is limited, at approximately 5 or 10 per cent of the population, and although the use of these technologies is focused on our metropolis, the truth is that its wide use is limited to the social sectors of higher relative earnings.

Hence, based on the experiences of the past, we should promote strategies from now to avoid the deepening of the gap in access to these new technologies for the greater part of the metropolitan population. If we do so we can enhance the benefits of its application replacement for the mitigation of the mobility in the cases where possible.

The application of new information technologies in the planning and management of mobility are a reality in some of our metropolis. However there is great potential in its extended implementation to improve significantly the operation of the agencies of public transport and traffic management, among others of the most urgent issues.

Conclusion

The discussion with regard to the disjunctive transport collective-individual transport must be based on understanding the context in which they operate our metropolitan areas. First we

cannot ignore the insertion and the role of our metropolis in the regional economy, national and even international. His role as consumer markets fundamental, even for products derived from its insertion globalized.

Who can deny, in particular the importance of local markets automotive for the MERCOSUR and for the Mexican economy in the context of the NAFTA. Mexico, by example, represent a local market annual more than one million new vehicles, 300,000 of which exclusively sold in Mexico City. The foregoing does not mean however that we should abandonment the mobility to the promotion of the motorization individually from the designs unique to the marketplace, means that we must consider this context determinant for devising strategies to take advantage of the benefits that represent and control to the extent possible, their negative impacts.

Thus, for example, the variety and access to an offer from unpublished transportation equipment provides the opportunity to push for the urgent and postponed replacement of vehicle fleets particularly those of the public service (charge and passengers), drawing and directing the advantages that now gives the market. However, we cannot ignore the fact that multiple reasons driving the need to provide collective service for the majority of our people.

Among other protrude the regressive income distribution, the fundamental environmental factors and the need to avoid the step of users of public transport, for example for young people to the individual. In our metropolis is unviable a mobility model similar to the American, which reversed the current proportions existing in our cities of the transfers collective with the private.

If the chronic shortage of resources is not sufficient reason, the rising costs and adverse impacts of urbanization extensive linked to the engine individual would be next to the very important environmental reasons more than sufficient to consider the need to move forward in a model of mobility that consider with realism the demands and costs of transportation, but promote strongly the alternatives of collective transport, taking advantage of the positive experiences in various major cities in our region, as are the cases, for example, in Curitiba, Brazil, Bogotá, Colombia and in the city of Leon in Mexico.

Therefore it is more realistic to consider the impetus for formulas that allow the combination intermodal between the private alternatives with the public, complemented with the replacement modal, to stop the current movement of the collective mobility toward the individual, flipping it

Without pretending to be exhaustive in the approach to the topic here dealt with, there is no doubt that the "revolution informational" also opens up possibilities to influence positively on the rationalization of the mobility both collective and individual, even more so in the enlarged scope of metropolis (GREGORY, 2011) .This if we are able to avoid the widening technological gap existing in our metropolitan communities and transporters agents.

We must also take into the future the opportunity which means the introduction of new technologies to public transportation, such as the represents the options of buses of "hydrogen cells", given the existence of an expanded demand for mass transport in our cities; as well as the already contained provision of a range of options in the technological offer international for the management of the transit, the mobility and the optimization of transport systems and road infrastructure.

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